

## Geometry 1.4 Study Guide: Pairs of Angles (pp 28-31)

I can identify adjacent, vertical, complementary, and supplementary angles.  
I can find measures of pairs of angles.

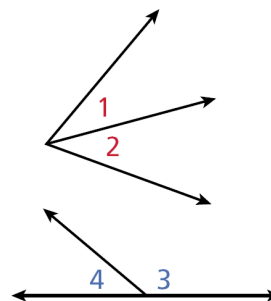
**Common Core: CC.9-12.G.CO.12** Make formal geometric constructions with a variety of tools and methods (compass and straightedge, string, reflective devices, paper folding, dynamic geometry software, etc.).

Many pairs of angles have special relationships. Some relationships are because of the measurements of the angles in the pair. Other relationships are because of the positions of the angles in the pair.

### Pairs of Angles

**Adjacent angles** are two angles in the same plane with a common vertex and a common side, but no common interior points.  $\angle 1$  and  $\angle 2$  are adjacent angles.

A **linear pair** of angles is a pair of adjacent angles whose noncommon sides are opposite rays.  $\angle 3$  and  $\angle 4$  form a linear pair.

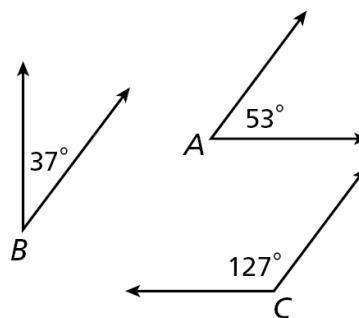


Refer to example 1 on page 28.

### Complementary and Supplementary Angles

**Complementary angles** are two angles whose measures have a sum of  $90^\circ$ .  $\angle A$  and  $\angle B$  are complementary.

**Supplementary angles** are two angles whose measures have a sum of  $180^\circ$ .  $\angle A$  and  $\angle C$  are supplementary.



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You can find the complement of an angle that measures  $x^\circ$  by subtracting its measure from  $90^\circ$ , or  $(90 - x)^\circ$ .

You can find the supplement of an angle that measures  $x^\circ$  by subtracting its measure from  $180^\circ$ , or  $(180 - x)^\circ$ .

Refer to example 2 on page 29.

Refer to example 3 on page 29.

Refer to example 4 on page 30.

1. What are vertical angles?

Refer to example 5 on page 30.

### **1.4 Assignment**

(pp 32-33) 14, 18, 22, 24, 28, 30, 33, 34.

(p 35) 4, 7, 8, 11, 12, 14, 19.

